

**DEPARTMENT OF VETERANS AFFAIRS
VETERANS HEALTH ADMINISTRATION
OFFICE OF INFORMATION**

VA Health Information Technology

With one of the most comprehensive electronic health record (EHR) systems in use today, VA is a leader in the development and use of EHRs and other information technology (IT) tools. VA has long recognized the benefits offered by EHRs, including immediate access to information, elimination of duplicate orders, increased patient safety, improved information sharing, more advanced tracking and reporting tools, and reduced costs. In a 2004 study reported in the *Annals of Internal Medicine*, researchers concluded that VA's sophisticated EHR tools, combined with an innovative quality management approach, have contributed to a higher quality of care for VA patients.

Health IT Supports Health Care

VA's work in health IT goes back several decades, when the agency created the Decentralized Hospital Computer Program (DHCP), one of the first automated health information systems ever developed to support multiple sites and cover the full range of health care settings. VA built on the foundation of DHCP to create VistA® – the Veterans Health Information Systems and Technology Architecture. VistA® is a suite of more than 100 applications, which support the day-to-day clinical, financial, and administrative functions of the Veterans Health Administration (VHA).

In the mid-1990s, VA developed the Computerized Patient Record System, or CPRS, to provide a graphical user interface to the information captured in VistA®. With CPRS, VA providers can access patient information at the point of care – across multiple sites and clinical disciplines. CPRS provides a single interface through which providers can update a patient's medical history, place a variety of orders, and review test results and drug prescriptions. Ninety-four percent of VA medication orders are entered directly into CPRS.

Virtually all clinical documents created by VA providers are now stored in VistA®. As of December 2005, VistA® systems contained nearly 779 million progress notes, discharge summaries, and reports, 1.54 billion orders, and almost 425 million images. More than 577 thousand new clinical documents, 906 thousand orders, and 608 thousand images are added each workday – a wealth of information for the clinician. VistA® and CPRS have been implemented at all VA medical centers and at VA outpatient clinics, long-term care facilities, and domiciliaries – 1,400 sites of care throughout VHA.

Other VA systems extend the capabilities of VistA® and CPRS. The Bar Code Medication Administration system (BCMA) is designed to ensure that each patient receives the correct medication, in the correct dose, at the correct time. BCMA provides real-time alerts if the right conditions are not met, and reduces reliance on human short-term memory by providing real-time access to medication order information at the patient's bedside. VistA® Imaging stores medical images such as x-rays, pathology slides, scanned documents, cardiology exam results, wound photos, and endoscopies directly into the patient record as soon as they become available, providing clinicians with additional information essential for diagnosis and treatment.

More information on VistA® and CPRS is available at http://www.va.gov/vha_oj/.

The My Health_eVet Personal Health Record

My Health_eVet (MHV) is another VA initiative designed to improve the overall health of veterans. MHV provides an "eHealth portal" – a secure environment where veterans can view and manage their personal health records (PHRs), and access electronic services, health information, health assessments, training and education materials, and other resources available through the VA and its partners. The system encourages greater patient-provider collaboration by giving veterans and their providers another means of communicating. The new online environment will complement existing VHA clinical practices, and further transform the way care is delivered and managed.

Through MHV, veterans can request copies of key portions of their VA EHRs and store the information in personal **eVA**ults, along with their self-entered health information and health assessments. Veterans can also specify who else can access the information in their accounts – including VA and non-VA health care providers, family members, and others involved in their care. This has the potential to dramatically improve the quality and outcome of health care for veterans through increased access, information, education, co-management, and advocacy.

MHV currently offers a robust, self-service PHR including:

- self-entered information, such as personal information, providers, treatment locations, medical events, lab tests, over-the-counter and prescribed medications, and supplements,
- health eLogs, including blood pressure, blood sugar, weight, pain, and pulse oximetry,
- journals, including food and activity journals, and Military Health History, and
- online prescription refill (available since August 2005)

More information about My Health**e**Vet is available at <http://www.myhealthvet.va.gov>.

VistA-Office EHR (VOE)

The Department of Health and Human Services' (HHS) Centers for Medicare and Medicaid Services (CMS) is collaborating with VA to make the benefits of EHRs available to other providers, as directed by President Bush in Executive Order 13335, issued in April 2004. VOE is an enhancement of VistA® and CPRS designed specifically for use in non-VA clinics and physician offices.

CMS has released VOE beta version 1.0 for evaluation by a limited number of physician practices. The system will be evaluated for usability, effectiveness, implementation, and potential for what is known as interoperability – the ability to communicate, exchange, and use data with other systems and software. As a result of this evaluation, software vendors will be able to further improve the software and develop a version of VOE that is certified in accordance with a process recognized by HHS. The availability of VOE and other EHRs will make it possible for veterans to reap the benefits of health IT whether they are being treated at VA facilities or at their family physicians' offices.

More information about VistA-Office EHR is available at <http://www.hhs.gov/healthit/VAvista.html>.

Moving Toward Interoperability

The broader availability of EHR technology through programs such as My Health**e**Vet and VOE presents new opportunities for data sharing and coordination of care. VA works with the Office of the National Coordinator for Health IT (ONCHIT) to support the creation of the National Health Information Network (NHIN), a nationwide mechanism for delivering health records when and where they are needed. The NHIN will enable VA, the Department of Defense (DoD), and other federal and private-sector providers to exchange health information privately and securely, ensuring that a veteran's health information is always available at the point of care.

VA helped to lay the groundwork for future US interoperability through the collaborative development of data and communications standards to support interoperability of EHR systems. VA was one of the founding partners of the Consolidated Health Informatics initiative (CHI), established to foster the adoption of data and communications standards to support interoperability among federal health agencies.

VA works closely with DoD to support the seamless transition of service members from the DoD health system to VA. A joint VA-DoD initiative includes the common adoption of standards, the development of interoperable data repositories, and the joint or collaborative development of software applications to support data exchange. Under the Federal Health Information Exchange (FHIE) program, DoD health information for nearly three million service members is available to VA providers through CPRS. Under the Bidirectional Health Information Exchange (BHIE) program, the departments can now exchange data in real-time for patients who receive care from both VA and DoD. The departments have planned an additional enhancement that will enable VA to view pre- and post-deployment data for service members of Operation Iraqi Freedom and

Operation Enduring Freedom. VA and DoD will soon complete the interface between the DoD Clinical Data Repository and the VA Health Data Repository. This interface, known as CHDR, will support the real-time bidirectional sharing of clinical data and clinical decision support, including drug-allergy and drug-drug checking across DoD and VA systems.

HealtheVet – The Next-Generation of VA Health IT

VA has continued to refine and enhance VistA[®] since its introduction to reflect advances in clinical practice, the availability of new commercial products, the changing VA health care model, new Congressional mandates, and new federal laws (such as the Health Insurance Portability and Accountability Act and cyber security requirements). Under the HealtheVet Program, VA will incrementally enhance and supplement the current functional capabilities of VistA[®] to provide increased flexibility, more sophisticated analytical tools, and support for seamless data sharing among providers both within and outside VA. Like VistA[®], software developed by VA under the HealtheVet program will be available in the public domain. Federal agencies, small medical practices, and EHR system vendors will all benefit from the advances made through HealtheVet.

Through the development of electronic health record tools, the promotion of health data standards, and collaboration with health care partners in both the public and private sectors, VA has demonstrated its long-standing commitment to IT in health care.

VA continues to refine and expand its use of IT and to share its expertise with partners throughout the health care community.